

ACCESSION NR: AP4030790

S/0020/64/155/004/0900/0903

AUTHOR: Terenin, A. N.(Academician); Putseyko, Ye. K.; Akimov, I. A.; Meshkov, A. M.

TITLE: Effect of the state of aggregation of dyes on the photocurrent carrier sign

SOURCE: AN SSSR. Doklady*, v. 155, no. 4, 1964, 900-903

TOPIC TAGS: dye, brilliant green, crystal violet, malachite green, auramine, organic semiconductor

ABSTRACT: The spectral response of photo emf was plotted and the photocurrent and dark current carrier signs were determined for brilliant green, crystal violet, malachite green, and auramine dyes. The spectral response of photo emf and the photocurrent carrier sign was determined by the condensor and contact potential methods, and the dark current carrier sign, from the Seebeck effect. The samples used were in the following states of aggregation: amorphous deposits from ethanol solutions (and in some cases amorphous

Card 1/3

ACCESSION NR# AP4030790

sublimates) having a mirror-like surface (samples I), the above deposits treated with ethanol vapors (II), or microcrystalline precipitates (III) prepared by repeated recrystallization from ethanol. The following results were obtained: in air or in vacuum for I, the photocurrent and dark current carriers were electrons; in air and vacuum for II and III, the carriers were holes. Evidently, contact of the mirror-like films (I) with water or alcohol vapors causes them to undergo rapid recrystallization to a stable form, fine crystals (II), with carriers of opposite sign. Adsorption of polar gases and vapors on the dye can lead not only to a change in the form of aggregation, but to the formation of impurity levels, both in the bulk and on the surface of the dye film. In the case of compact mirror-like films (I), the role of the dye surface, which interacts with the surrounding atmosphere, is negligible in comparison with the role of the bulk of the sample. Therefore, the negative photocurrent carrier sign which is inherent to the dye is also preserved in air. In the case of minute crystals (II and III) in which the molecules of the dye are apparently less closely packed and whose specific surface is greater, molecules capable of trapping electrons can penetrate into the lattice.

Card 2/3

ACCESSION N.R.: AP4030790

As a result, microcrystalline layers exhibit hole conduction even
in high vacuum. Orig. art. has 4 figures.

ASSOCIATION: none

SUBMITTED: 06Dec63 DATE ACQ: 30Apr64 ENCL: 00
SUB CODE: CH,PH NO REF SOV: 009 OTHER: 008

Card

3/3

ACCESSION NR: AP4034545

8/0020/64/155/005/1167/1170

AUTHOR: Mylnikov, V. S.; Terenin, A. N. (Academician)

TITLE: Spectral sensitization of the intrinsic photoeffect in copper phenylacetyl-
ene with dyes.

SOURCE: AN SSSR, Doklady*, v. 155, no. 5, 1964, 1167-1170

TOPIC TAGS: copper phenylacetylenide, intrinsic photoeffect, sensitization,
chlorophyll a, pinacyanol, transverse photoconductivity, diffusion photoelectro-
motive force, spectral sensitization, semiconductor, organic semiconductor,
majority carrier, minority carrierABSTRACT: The sensitization of the photoeffect in copper phenylacetylenide by
chlorophyll a or pinacyanol was studied by the methods of transverse photoconduc-
tivity and diffusion electromotive force described earlier by the authors (DAN,
153, No. 3 (1963)). Sensitizing with a 10^{-3} M solution of chlorophyll a increased
the photo-e.m.f. of the copper phenylacetylenide (indicating dispersion of the dye
on its surface) and shifted the maximum with respect to the dye solution (indica-
ting adsorption). The photoconductivity spectrum of the copper phenylacetylenide

Card 1/3

ACCESSION NR: AP4034545

in the sensitized region shifted toward the long wave, but the dark conductivity was practically unchanged. The 10^{-3} M ethanol solution of pinacyanol shifted the maximum of the spectral sensitivity of the copper phenylacetylenide toward the long wave in comparison to the absorption spectrum of the solution in both methods. An increase in the intensity of one of the maxima was attributed to greater aggregation of the dye on adsorption and subsequent sensitization by the dye aggregate. Pinacyanol reduced the photoconductivity and the photo-e.m.f. of the copper acetylenide; it did not change its dark photoconductivity. It was concluded the mechanism of spectral sensitization in organic semiconductors is similar to that in inorganic semiconductors. A sensitizing effect was shown by different classes of dyes--cationic (pinacyanol), anionic (erythrosine), or neutral (chlorophyll a). The changes in the intrinsic photosensitivity of copper acetylenide observed in the present work were explained as follows: if the adsorbed dye captured the majority carriers (holes) upon illumination in the intrinsic sensitivity region, then the photo-e.m.f. is reduced in this area, as with pinacyanol. The intrinsic photo-e.m.f. is increased if the dye captured the minority carriers (electrons), while the transverse photoconductivity decreased. The anomalous increase in photoconductivity produced by chlorophyll was attributed to absorption

Cord 2/3

ACCESSION NR: AP4034545

bands of the chlorophyll a in this region, which could produce a photosensitizing effect. Orig. art. has: 4 figures.

ASSOCIATION: None

SUBMITTED: 30Dec63

ENCL: 00

SUB CODE: EM, MT

NO REF Sov: 007

OTHER: 006

Card 3/3

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8



APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

BARACHEVSKIY, V.A.; KHOIMOGOROV, V.Ye.; BELOTSERKOVSKIY, G.M.; TERENIN, A.N.

Spectral study of the specific nature of an active Al_2O_3 surface,
Kin. i kat. 6 no.2:258-268 Mr-Ap '65. (MIRA 13:7)

1. Leningradskiy gosudarstvennyy universitet i Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8



APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

L 01267-66 EWT(1)/EWT(m)/EPF(c)/EWP(j) IJP(c) RM

ACCESSION NR: AP5020781

UR/0048/65/029/008/1271/1273

AUTHOR: Dmitriyevskiy, O. D.; Terenin, A. N.

36
B

TITLE: Quenching of the fluorescence and deactivation of the triplet state of acriflavine [Report, 13th Conference on Luminescence held in Khar'kov 25 June to 1 July 1964]

SOURCE: AN ASSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 8, 1965, 1271-1273

TOPIC TAGS: luminescence quenching, electron donor, electron acceptor, organic solvent

ABSTRACT: The quenching of the fluorescence of acriflavine in acetone, nitro-methane, and dimethylformamide solutions by nitrobenzene, dinitrobenzene, analine, and diphenylamine was investigated. The solvents were selected because of their high dielectric constants. The quenching followed the Stern-Volmer law and the quenching constants, which ranged from 7 to 750, varied with the donor or acceptor qualities of the quenching agent. The deactivation of the triplet state in acetone solution by diphenylamine was investigated by high-speed spectrometry following activation by a short light flash. The quenching constant of the

Card 1/3

L 01267-66

ACCESSION NR: AP5020781

triplet state was about 25 times that of the singlet, but because of the different lifetimes it is concluded that the probability of quenching the singlet state is about 100 times that of quenching the triplet state. In oxygen-free solutions there were observed the absorption band of the positive diphenylamine ion (lifetime 130 microsec) and the triplet-triplet absorption band. The triplet state decayed with a lifetime of 28 microsec. Admission of oxygen to the solution caused the triplet absorption band to disappear, although the diphenylamine ion band remained. It is concluded that the quenching agent gives up its electron via the singlet level, and that the deactivation of the triplet state proceeds by a different mechanism. Attempts were made to detect the diphenylamine ion in other solvents. Success was achieved only in solvents with high dielectric constants. It was possible to detect the ion in nitromethane, but not in dimethylformamide, although the two solvents have nearly identical dielectric constants and dipole moments. It is concluded that the electron donor-acceptor characteristics of the solvent are also important. Orig. art. has 2 figures and 1 table.

Card 2/3

L 01267-66

ACCESSION NR: AP5020781

ASSOCIATION: none

SUBMITTED: 00

NO REF SOV: 003

ENCL: 00

OTHER: 001

SUB CODE: GC, OP

card

3/3

LISACHEVICH, A.A.; VILTSOV, F.I.; TERENIN, A.N., akademik

Mass spectrometric study of photosorption processes in the
oxygen - zinc oxide system. Dokl. AN SSSR 160 no.4;864-866
(MIRA 18:2)
F '65.

1. Leningradskiy gosudarstvennyy universitet.

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

LODIN, V.Ya.; KHOLOGOROV, V.Ye.; TERENIN, A.N., akademik

Absorption spectra and electron paramagnetic resonance of quinones
adsorbed from the gaseous phase on the surface of oxides. Dokl. AN
SSSR 160 n. 6:1347-1350 F '65. (MIRA 18:2)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

L 1364-66 EWT(m)/EPF(c)/EWP(j)/ENA(c) RPL WW/RM

ACCESSION NR: AP5020834

UR/0020/65/163/004/0935/0938

52
50

53
B

AUTHOR: Pimenov, Yu. D.; Kholmogorov, V. Ye.; Terenin, A. N. (Academician)

TITLE: Spectral detection of molecular anion radicals during adsorption of vapors of electron acceptor molecules on oxides

SOURCE: AN SSSR. Doklady, v. 163, no. 4, 1965, 935-938

TOPIC TAGS: spectrometry, absorption spectrum, anion, EPR spectrum, electrochemistry, electron acceptor

ABSTRACT: The absorption and EPR spectra were obtained for several electron acceptor molecules adsorbed on ZnO, TiO₂ and MgO to determine whether molecular anion radicals were formed. Vapors of p-benzoquinone, fluoranil, chloranil, bromanil, trinitrobenzene and tetracyanoethylene were admitted for adsorption onto samples of the oxides under 10⁻⁵ mm Hg vacuum. The benzoquinone and chloranil anion radicals were identified from their absorption maxima in the 450 millimicron region and from the accompanying EPR signals. Absorption

Card 1/2

L 1364-66

ACCESSION NR: AP5020834

2

bands of the anion semiquinones shifted toward the long wave as the affinity of the molecules for electrons increased. The broad absorption bands in the 500-700 millimicron region intensified with increased surface concentration and were accompanied by broadened and intensified EPR signals. They were attributed either to the transfer of charge in binary associations formed from anion radicals and neutral quinone molecules or to dimers of two anion radicals having no paramagnetism. The spectra for tetracyanoethylene were interpreted to be analogous to those of the quinones. The spectra of trinitrobenzene indicated reaction of the unpaired electron with the nucleus of the nitrogen atom of the nitro group, and the broad band was ascribed to intermolecular charge transfer. Orig. art. has: 4 figures and 1 table

ASSOCIATION: None

SUBMITTED: 22Mar85

ENCL: 00

SUB CODE: OP, NP

NR REF SOV: 004

OTHER: 015

Card2/2

L 1623-66 EMT(1)/FS(v)-3 DD

ACCESSION NR: AP5021289

UR/0020/65/163/005/1270/1273

AUTHOR: Yevstigneyev, V. B.; Savkina, I. G.; Terenin, A. N.

TITLE: Study of the interaction of a pigment of the chlorophyll type with an electron acceptor under heterogeneous conditions using photopotential measurements

SOURCE: AN SSSR. Doklady, v. 163, no. 5, 1965, 1270-1273

TOPIC TAGS: chlorophyll, pigment, phthalocyanine, methyl red, redox reaction, photosensitivity, electron donor, electron acceptor, electrochemistry

ABSTRACT: Based on the authors' earlier work showing that methyl red will accept an electron from photosensitized chlorophyll or phthalocyanine films only in an acid medium, the mechanism of the sensitizing effect of chlorophyll and its analogs on the photoeduction of methyl red was further investigated. The effect of a methyl red solution at varying concentrations and varying pH on the formation of a positive photopotential in magnesium phthalocyanine film was studied. The latter pigment was selected as a chlorophyll model because its films are

Card 1/2

L 1623-66

ACCESSION NR: AP5021289

more solid and give a higher potential. The electrolyte was 0.1, or 1.5 M KCl. Tabulated figures show the potential obtained between pH 0 and 10 in the absence of oxygen (air evacuation). At pH 5 - 5.5 this effect decreased steeply, and at pH 10 it was zero. In an acid medium the effect of methyl red increased with its concentration; at 10^{-4} - 10^{-3} mol/l it completely replaced the oxygen as the electron acceptor, and at higher concentrations its acceptor effect was even higher. It also increased upon air evacuation. Addition of a reducing agent such as ascorbic acid depressed the acceptor capacity of methyl red. It was concluded that the degree of acceptor-donor interaction between methyl red and light irradiated pigment film may be varied by varying the pH, and may then be used for determining redox reactions. Such reactions involving other electron acceptors will be discussed in another paper. Orig. art. has: 1 table and 2 figures

ASSOCIATION: Institut biokhimii im. A. N. Bakha AN SSSR (Institute of Biochemistry, AN SSSR)

SUBMITTED: 03Nov64

NR REF SOV: 011

ENCL: 00
OTHER: 002

SUB CODE: GC

Card 2/2 *QD*

L 2685-66 EPF(c)/EWT(m)/EWP(i)/T/EWP(t)/EWP(b) IJP(c) DS/JD
ACCESSION NR: AP5023368 UR/0020/65/164/001/0122/0124

AUTHORS: Basov, L. L.; Solonitsyn, Yu. P.; Terenin, A. N. (Academician)

TITLE: Influence of illumination on the adsorption ability of certain oxides

SOURCE: AN SSSR. Doklady, v. 164, no. 1, 1965, 122-124

TOPIC TAGS: photocell, photosorption, semiconductor, metal oxide, oxygen, hydrogen, methane

ABSTRACT: The photosorptive properties of thirty different oxide films were investigated. The aim of the investigation was to extend the data on the effect of light irradiation on the photosorptive properties of a number of oxides reported by V. L. Rapoport (DAN, 153, 871, 1963). The experimental procedure followed was that of Yu. P. Solonitsyn (Kinetika i kataliz, 6, No. 2, 1965). The photosorption ability was determined by measuring the sorption of oxygen, hydrogen, and methane gases. The results are presented in tabular form. It was found that for most oxides photosorption occurs only if irradiated with light of a wavelength shorter than 330 m μ . It is noted that photosorption is a more common phenomenon than photoconduction. Orig. art. has: 1 table.

Card 1/2

L 2685-66

ACCESSION NR: AP5023368

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova
(Leningrad State University)

SUBMITTED: 05Apr65

ENCL: 00

SUB CODE: GC,OP

NO REF SOV: 008

OTHER: 006

KC
Card 2/2

L 16108-66 EWT(1)/EWT(m)/EWP(j)/EWA(h)/T IJP(c) AT/RM

ACC NR: AP6003252

SOURCE CODE: UR/0020/65/165/006/1332/1335

AUTHOR: Akimov, I A.; Terenin, A. N. (Academician)

58

ORG: None

56

B

TITLE: Experimental check of the hypothesis on the p-n mechanism of spectral sensitization

SOURCE: AN SSSR. Doklady, v. 165, no. 6, 1965, 1332-1335

TOPIC TAGS: photoelectric effect, photoelectromotive force, zinc oxide, thallium compound, photoconductivity, dye chemical, pn junction, absorption spectrum, Semiconducting materials

ABSTRACT: In order to check the mechanism of p-n sensitization, the effectiveness of the sensitization of the photoelectric effect in electron- and hole-type semiconductors (ZnO and TlI) by dyes having n- and p-type photoconductivity was compared. The spectral distribution of the photo-emf and photoconductivity of ZnO and TlI powders to which brilliant green oxalate and sulfate had been added was measured. The sulfate was more effective in sensitizing the photoelectric effect in both n-ZnO and p-TlI. The spectral curves of the sensitized photoelectric effect were similar to the absorption spectra of the dyes adsorbed on these semiconductors and different from the spectra of solid layers of the dyes. The data indicate

Card 1/2 UDC: 535.215

L 16108-66

ACC NR: AP6003252

cate that the sensitizing capacity of the dyes is not determined by their inherent photoelectric properties. The findings are consistent with the mechanism of transfer of energy (not of an electron) from the dye to the semiconductor and the resultant lifting of an electron from the semiconductor's attachment level to its conduction band. Orig. art. has: 3 figures.

SUB CODE:Z0,07 / SUBM DATE: 16Jul65 / ORIG REF: 003 / OTH REF: 011

not
Card 2/2

L 27176-66 EWT(1)/T LJP(c)
ACC NR: AP6005397

SOURCE CODE: UR/0413/66/000/001/0152/0152

INVENTOR: Levina, F. A.; Myl'nikova, V. S.; Rybalko, O. I., Sideravichyus, D. -I. B.;
Sladkov, A. M.; Terenin, A. N.

32
B

ORG: none

32

TITLE: Preparation of electrophotographic layers. Class 57, No. 169395

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 152

TOPIC TAGS: electrophotography, electrophotographic layer

ABSTRACT: An Author Certificate has been issued describing a method for making electrophotographic layers, using poly-N-vinylcarbazole as binder. To increase the sensitivity of the coating, organic photoelectric sensitive compounds such as metal polyacetylenes and acetylenides are added to the poly-N-vinylcarbazole. [LD]

2

Card 1/1

plus

L 04760-67 EWP(j)/EMT(l)/EMT(m) LIP(e) RM

ACC NR: AP6025971

SOURCE CODE: UR/0051/66/021/001/0128/0130

62

B

AUTHOR: Kobyshev, G. I.; Lyalin, G. N.; Terenin, A. N.

ORG: none

TITLE: Intermolecular energy transfer from the excited triplet level

SOURCE: Optika i spektroskopiya, v. 21, no. 1, 1966, 128-130

TOPIC TAGS: molecular interaction, molecular property, molecular structure, molecular spectrum, light excitation, excitation energy, excitation spectrum, excited state, spectroscopy

ABSTRACT: The possibility of non-radiating intermolecular energy transfer from the excited triplet level of a donor molecule is experimentally confirmed. A glasslike solution of fluoresceine and naphthalene in boric acid was used. Due to the long life of the triplet state and its high quantum output it was possible to excite a high percentage of fluoresceine into its triplet state and to retard its deactivation by maintaining it in a solid state form. An output from a mercury arc in the 436μ region was used to first achieve transition into the singlet state. The second transition into the upper triplet level was due to illumination from an incandescent source through a filter. The luminescence spectrum from naphthalene was detected by means of a photomultiplier preceded by a monochromator to isolate the UV radiation of interest

UDC: 535.373.2

Card 1/2

L 04760-67

ACC NR: AP6025971

in the region of 310 to 360 $\text{m}\mu$. The stimulated fluorescence of naphthalene can only be explained on the basis of experimental results by non-radiation transfer of electron energy from the triplet excitation level of fluoresceine to the singlet fluorescent level of naphthalene. The proposed interpretation of energy transfer also agrees with the extinction of the red line in the fluoresceine radiation which occurs in the presence of naphthalene. Orig. art. has: 1 figure, 1 table.

SUB CODE: 20/ SUBM DATE: 24Jan66/ ORIG REF: 010/ OTH REF: 008

kh
Card 2/2

L 18912-66 EWI(n)/EP(j)/T/ETC(s)-6 DS/WW/RM
ACC NR: AF6008056 SOURCE CODE: UR/0020/66/166/004/0913/0916

AUTHOR: Ryl'kov, V. V.; Kholmogorov, V. Ye.; Terenin, A. N. (Academician)

ORG: none

TITLE: Double photosensitization of the dissociation of organic molecules at 77°K
(ternary systems) 7455

SOURCE: AN SSSR. Doklady, v. 166, no. 4, 1966, 913-916

TOPIC TAGS: photosensitization, photolysis, electron paramagnetic resonance, free radical, electron spin resonance

ABSTRACT: The possibility of achieving a double spectral sensitization of the dissociation of organic molecules at 77°K was checked experimentally on ternary systems (solid solutions at 77°K) consisting of two spectral sensitizers and a third component which underwent photolysis into radicals, viz: (1) acetophenone + naphthalene + CH₃I; (2) benzophenone + naphthalene + CH₃I; (3) acetophenone + biphenyl + CH₃I; (4) benzophenone + biphenyl + CH₃I; (5) acetophenone + naphthalene + tert-butyl alcohol. The frozen solutions were illuminated with light from a mercury lamp, and their electron spin resonance spectra were taken. The results lead to the

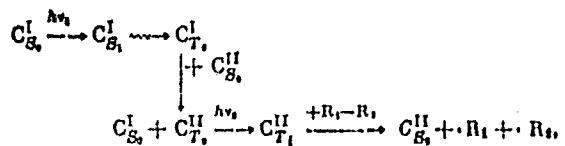
UDC: 541.14 + 538.113

Card 1/2

L 18912-66

ACC NR: AP6008056

following mechanism of double photosensitization of the rupture of the C-I bond in CH₃I or the C-C bond in tert-butyl alcohol:



where C^I and C^{II} are the first and second sensitizer; R₁-R₂ is the molecule of photolyzed substrate; S_i and T_i are designations of singlet and triplet states of the sensitizers (i = 0, 1, 2, 3...). This mechanism suggests that electron energy is transferred from the sensitizer, excited to high triplet states T, to the substrate molecule. It is concluded that the ESR method, which records the accumulation of free radicals in the course of sensitized photolysis of the substrate, is a unique detector-counter of the number of successful cases of energy transfer leading to the breakdown of the substrate molecule and to the formation of the corresponding radicals, and thus permits a study of such processes. Orig. art. has: 2 figures, 1 formula.

SUB CODE: 07, 09 SUBM DATE: 13Nov65/ ORIG REF: 007/ OTH REF: 002

Card 2/2 inc.

ACC NR: AP7008877

SOURCE CODE: UR/0020/66/169/003/0550/0553

AUTHOR: Ionov, L. N.; Akimov, I. A.; Terenin, A. N. (Academician)

ORG: none

TITLE: Photoconductivity of organic dyes at a frequency of 10^{10} c

SOURCE: AN SSSR. Doklady, v. 169, no. 3, 1966, 550-553

TOPIC TAGS: dye chemical, photoconductivity, EPR, klystron

SUB CODE: 20

ABSTRACT: The photoconductivity of 11 organic dyes has been studied at ultra-high frequencies by means of an electron paramagnetic resonan radiospectrograph with a transient resonator, described earlier (E. V. Baranov, I. A. Akimov, DAN, 1954, 184, 1964). No use was made of magnetic fields; the dye sample in the form of a 10^{-4} - 10^{-3} cm layer was held by a mica disc 5.3 cm in diameter and placed in the region of the maximum electric field within the H₀₁₂-type cylindrical resonator (Q factor with the sample = 10^4). The UHF power generated by a klystron (ν = 9600 Mc, P = 5 mW) passed through the resonator and was registered by a bolometer. The article presents data about the various samples used, the spectral distribution of photoconductivity at UHF of copper polyphenylacetylenide, and curves of temperature dependence of photoconductivity at UHF of a crystalline and amorphous layer of dyes for all 11 dyes used. Ye. K. Putseyko and I. A. Popova supplied the pigment samples, while A. M. Sladkov supplied the polymer. The authors thank V. Ye. Kholmogorov for discussions during the work.

Orig. art. has: 2 figures and 1.table. [JPRS: 38,417]

Card 1/1

UDC: 535.215
0929 1678

SOURCE CODE: UR/0020/67/172/002/0371/0374

AUTHOR: Akimov, I. A.; Bentse, V. M.; Vilessov, F. I.; Torenin, A. N. (Academician)

ORG: none

TITLE: Photoemissive effect from dyes adsorbed on ZnO and mechanism of spectral sensitization

SOURCE: AN SSSR. Doklady, v. 172, no. 2, 1967, 371-374

TOPIC TAGS: photoconductivity, zinc oxide

ABSTRACT: A study of the cyanine dyes 3,3'-diethyl-9,11,15,17-bis(8,8'-dimethyltrimethylene)thiapentacarbocyanine iodide (I) and 3,3'-diethylthiapentacarbocyanine iodide (II), used as spectral sensitizers of silver halide photographic emulsions, was carried out by determining the spectral distribution of the photoconductivity of ZnO containing the dyes and the spectral distribution of the quantum yield of photo-electron emission from ZnO layers before and after introduction of the dyes. The dyes were found to sensitize the photoconductivity of ZnO with a high degree of effectiveness. The results obtained permit one for the first time to compare the position of the electronic energy levels of a semiconductor and a dye in an attempt to provide an explanation for the mechanism of spectral sensitization (Fig. 1).
Orig. art. has: 4 figures.

SUB CODE: 07/ SUEM DATE: 21Jun66/ ORIG REF: 004/ OTH REF: 007

Card 1/2

UDC: 535.215

ACC NR: AP7005674

SOURCE CODE: UR/0413/67/000/002/0144/0144

INVENTOR: Yefimov, K. P.; Romanov, A. S.; Terenin, A. P.; Chizhikov, Yu. V.

ORG: none

TITLE: Device for synchronizing the operation of the exhaust valves of a pressure regulating system for pressurized cabins. Class 47, 190747

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 144

TOPIC TAGS: pressure regulator, aircraft cabin equipment, cabin pressurization, spacecraft cabin equipment

ABSTRACT: The proposed synchronizing device consists of a housing whose cavity contains spring-loaded elastic membranes with by-pass valves fastened to them. These valves shut off the main ducts connecting the exhaust valve.

UDC: 621.646
629.13.01/06

Card 1/3

ACC NR: AP7005674

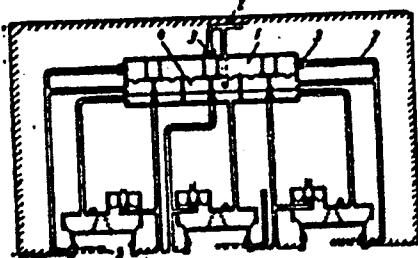
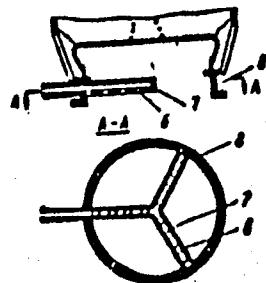


Fig. 1. Synchronization device

- 1 - Cavity above membrane;
- 2 - feed lines; 3 - check valves;
- 4 - chambers under membrane;
- 5 - transducer; 6 - openings;
- 7 - stiffeners; 8 - housing.



Card 2/3

ACC NR: AP7005674

cavities under the membrane to a vent to the atmosphere. To ensure synchronous operation of three or more exhaust valves, the cavity above the membrane in the device is connected by feedlines containing check valves to the corresponding chambers under the membrane and to air flow-rate transducers (see Fig. 1). Orig. art. has: 1 figure. [TN]

SUB CODE: 01134 SUBM DATE: 29 Dec 65 ATD PRESS: 5117

Card 3/3

TERENIN, B. M.

Terenin, B. M. - "The use of a method of initial parameters for calculating closed cylindrical envelopes (on the basis of the theory of V. Z. Vlasov), Trudy laboratorii stroit. mekhaniki (Tsentr. nauch.-issled. in-t prom. sooruzheniy), Moscow, 1949, p. 158-204.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

SOV/124-58-5-5763

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 120 (USSR)

AUTHOR: Terenin, B. M.

TITLE: Vibrations of Circular Arches (Kolebaniya krugovykh arok)

PERIODICAL: V sb.: Issledovaniya po teorii sooruzheniy. Nr 7. Moscow, Gosstroyizdat, 1957, pp 43-61

ABSTRACT: An approximate calculation method for circular arches of constant cross section is proposed. The arches are considered as systems possessing two degrees of freedom of motion. The combined method of the structural mechanics of systems of bars is used as the basis of the calculation. The differential equations of the problem describe the symmetrical as well as the nonsymmetrical vibrations natural of the arch. In order to obtain the frequency and the first two vibrational modes for three-hinged, two-hinged, and nonhinged arches, specially tabulated formulas are derived by means of the determinant of the system. Tables are also given for greater ease of determination of the displacements and the bending moments in the nodes of the arch, which are the apex points of a broken line substituting for the curved axis of the arch. The number of links in the hinged broken line is taken as six. A. I. Oseled'ko

Card 1/1 1. Structures--Vibration 2. Approximate computation--Applications

TERENIN, B.M., dotsent, kand.tekhn.nauk (Moskva)

Dynamic analysis of cylindrical shell roofs. Issl. po teor.
soorvzh. no. 9:119-147 '60. (MIRA 14:1)
(Roofs, Shell)

S/124/63/000/003/047/065
D234/D308

AUTHOR: Terenin, B. M.

TITLE: Dynamic design of thin-walled shell-beams of box-shaped cross-section

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 3, 1963, 26, abstract 3V173 (In collection: Issled. po teorii sooruzh. no. 11, M., Gosstroyizdat, 1962, 5-33)

TEXT: The author develops a method of determining the frequencies and forms of natural torsional vibrations of thin-walled closed single-edge rods. The first case considered is that of a very thin wall, when the stressed state is basically determined by the deformation of the edge of the cross section, and shear deformations can be neglected. The solution is based on the theory of folded systems proposed by V. Z. Vlasov. A more exact solution of the problem is based on V. Z. Vlasov's variational method, which made it possible to take into account the shear deformations. Equations for determining the frequencies and forms of vibrations are

Card 1/2

Dynamic design of ...

S/124/63/000/003/047/065
D234/D303

obtained and typical examples are considered in detail. 10 references. / Abstracter's note: Complete translation. 7

Card 2/2

TERENIN, B.M., kand. tekhn. nauk (Moskva)

Design of cylindrical arches or shells for static loading.
Issl. po teor. sooruzh. no. 12:181-195 '63. (MIRA 16:6)

(Elastic plates and shells)

TERENIN, B.M., kand. tekhn. nauk (Moskva)

Dynamic calculation of thin-walled shell-beams of a closed multi-contoured profile. Issl. po teor. sooruzh. no.13:21-37 '64.
(MIRA 18:2)

TERENIN, Dmitriy Fedorovich; PROKOPENKO, L.K inzhener, redaktor;
YUDZON, D.M. tekhnicheskiy redaktor.

[Results of traction and heat engineering tests on series FD
locomotives with wide stack steam superheaters] Rezul'taty
tiagovo-teplotekhnicheskikh ispytanii parovoza serii FD s shi-
rokotrubnym paroperegrrevatelem. Moskva, Gos. transp. zhel-dor.
izd-vo, 1955. 125 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'-
skii institut zheleznodorozhnogo transporta. Trudy, no. 99)
(Locomotives--Testing) (MLRA 8:8)

Faktchik. H.L.

ALFEROV, A.A.; ARTEMKIN, A.A.; ASHKENAZI, Ye.A.; VINOGRADOV, G.P.; GALEYEV,
A.U.; GRIGOR'YEV, A.N.; D'YACHENKO, P.Ye.; ZALIT, N.N.; ZAKHAROV,
P.M.; ZOBNIK, N.P.; IVANOV, I.I.; IL'IN, I.P.; YMETIK, P.I.; KUDRYA-
SHOV, A.T.; LAPSHIN, F.A.; MOLYARCHUK, V.S.; PERTSOVSKIY, L.M.;
POGODIN, A.M.; RUDOV, M.L.; SAVIN, K.D.; SIMONOV, K.S.; SITKOVSKIY,
I.P.; SITNIK, M.D.; TETEREV, B.K.; TSETYRKIN, I.Ye.; TSUKANOV, P.P.;
SHADIKYAN, V.S.; ADELUNG, N.N., retsenzent; AFANAS'YEV, Ye.V., retsen-
zent; VLASOV, V.I., retsenzent; VOROB'YEV, I.Ye., retsenzent; VORO-
NOV, N.M., retsenzent; GRITCHENKO, V.A., retsenzent; ZHEREBIN, M.H.,
retsenzent; IVLIYEV, I.V., retsenzent; KAPORTSEV, N.V., retsenzent;
KOCHUROV, P.M., retsenzent; KRIVORUCHKO, N.Z., retsenzent; KUCHKO,
A.P., retsenzent; LOBANOV, V.V., retsenzent; MOROZOV, A.S., retsen-
zent; ORLOV, S.P., retsenzent; PAVLUSHKOV, E.D., retsenzent; POPOV,
A.N., retsenzent; PROKOF'YEV, P.F., retsenzent; RAKOV, V.A., retsen-
zent; SINEGUBOV, H.I., retsenzent; TERENIN, D.F., retsenzent; TIKHO-
MIROV, I.G., retsenzent; URBAN, I.V., retsenzent; FIALKOVSKIY, I.A..
retsenzent; CHEPYZHES, B.F., retsenzent; SHEBYAKIN, O.S., retsenzent,
SHCHERBAKOV, P.D., retsenzent; GARNIK, V.A., redaktor; LOMAGIN, N.A.,
redaktor; MORDVINKIN, N.A., redaktor; NAUMOV, A.N., redaktor; PORE-
DIN, V.F., redaktor; RYAZANTSEV, B.S., redaktor; TVERSKOV, K.N.,
redaktor; CHEREVATYY, N.S., redaktor; ARSHINOV, I.M., redaktor;
BABELYAN, V.B., redaktor; BERNGARD, K.A., redaktor; VERSHINSKIY, S.V.,
redaktor; GAMBURG, Ye.Yu., redaktor; DERIBAS, A.T., redaktor;
DOMEROVSKIY, K.I., redaktor; KORNEYEV, A.I., redaktor; MIKHEYEV, A.P.,
redaktor

(Continued on next card)

ALFEROV, A.A. ---- (continued) Card 2.

MOSKVIN, G.N., redaktor; RUBINSHTEYN, S.A., redaktor; TSYPIN, G.S.,
redaktor; CHERNYAVSKIY, V.Ya., redaktor; CHERNYSHEV, V.I., redaktor;
CHERNYSHEV, M.A., redaktor; SHADUR, L.A., redaktor; SHISHKIN, K.A.,
redaktor

[Railroad handbook] Spravochnaya knizhka zheleznodorozhnika, Izd.
3-e, ispr. i dop. Pod obshchey red. V.A. Garnyka. Moskva, Gos.
transp.zhel-dor. izd-vo, 1956. 1103 p. (MLRA 9:10)

1. Nauchno-tehnicheskoye obshchestvo zheleznodorozhnogo transporta.
(Railroads)

TERENIN, D.F., knnd.tekhn.nauk; LYUTENBERG, R.M., inzh.

Quality of oxidized coals of the Kuznetsk Basin and their
use in locomotives. Vest. TSNII MPS 16 no.8:24-30 L '57.

(MIRA 11:1)

(Locomotives) (Kuznetsk Basin--Coal--Analysis)

TEGENIN, D.F.; LYUTENBERG, R.M.

Using oxidized Kuznetsk Basin coal in railroad transportation.
Biul.tekh.-ekon.inform. no.5:70-71 '59. (MIRA 12:8)
(Railroads--Fuel)

KOZHINOV, V.F., dots., kand.tekhn.nauk; TERENIN, M.P.

Laying subaqueous gas mains under winter conditions. Gor.khoz.Mosk.
(MIRA 12:3)
33 no.2:19-22 F '59.

1. Zamestitel' komandira 3-go otryada podvodno-tekhnicheskikh rabot
Ministerstva rechnogo flota.
(Pipelines)

KAZHINOV, V.T., dots., kand.tekhn.nauk; TERENIN, M.P.

Laying of underground pipelines across water barriers.
Gor. khoz. Mosk. 32 no.8:19-20 Ag '58. (MIRA 11:9)

1. Glavnnyy inzhener 3-go razryada podvodno-tekhnicheskikh rabot
Ministerstva rechnogo flota (for Terenin).
(Pipelines)

REF ID: A6513

USSR/Electricity - Communication wires

Card 1/1 Pub. 133 - 8/23

Authors : Efremov, L. A., Chief, and Terenin, V. N., Engineer at the Berislav Communications Center

Title : Splicing bimetallic wires

Periodical : Vest. svyazi 11, page 15, Nov 1954

Abstract : A dependable method of splicing bimetallic wire, frequently used for replacing the old type 3 mm copper wire in communication lines, is proposed. The method consists in extending the ends of the wires to be spliced, somewhat beyond the copper-tube sleeve slipped over the wire ends. The wire ends, which are extended beyond the copper sleeve for a length no less than the diameter of the wires, are then bent back over the connecting sleeve. The wires and sleeve are then twisted through 1½ turns. Tests have proven this method to give highly satisfactory results.

Institution:

Submitted:

VER. V. N. K. V. C. R.

Subject : USSR/Power Eng. AID P - 4079
Card 1/1 Pub. 110-a - 4/14
Authors : Barshteyn, I. K., Kand. Tech. Sci. and V. R. Terenkal',
Eng. Central Boiler and Turbine Institute
Title : The 730/1300/2564 centrifugal pulverized coal mill and
its grinding properties.
Periodical : Teploenergetika, 12, 22-28, D 1955
Abstract : The performance of a new type of mill is analyzed in
detail. The design and operation of this mill are
explained. Certain advantages such as operational
speed, low supply of current needed, more efficient
ventilation system, and the longer wear of parts are
emphasized.
Institution : None
Submitted : No date

NEVEL'SON, S.P., kand.tekhn.nauk; PROKOPENKO, A.G., inzh.; MARKIN,
V.P., inzh.; TERENKAL', V.R., inzh.

Thermal characteristics of a 100 megawatt turbine-boiler
unit. Elek.sta. 31 no.516-11 My '60.

(MIRA 13:8)

(Electric power plants—Equipment and supplies)

NEVEL'SON, S.P., kand.tekhn.nauk; MARKIN, V.P., inzh.; TERENKAL', V.R.,
inzh.

Certain thermal characteristics of the TP-70 boiler operating
on natural gas in system with a turbine. Elec. sta. 31 no.
8:2-4 Ag '60. (MIRA 14:9)
(Boilers) (Steam turbines)

GUSEV, V.N., inzh.; MARKIN, V.P., inzh.; TERENKAL', V.R., inzh.;
SHEVYAKIN, P.A., inzh.

Adjustment and test results of the TP-70 boiler operating on
natural gas. Energomashinostroenie 7 no.7:1-5 J1 '61.
(MIRA 14:8)
(Boilers-Testing)

TERENOZHIN, A. I.

"Kimmeriytsy."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,
Moscow, 3-10 Aug 64.

RUB, M.G.; ONIKHIMOVSKIY, V.V.; BAKULIN, Yu.I.; GLAVATSKAYA, V.N.;
KOSHMAN, P.N.; MAKEYEV, B.V.; RASTUMSEV, A.P.; SELEZNEV, P.N.;
TERENTENKO, N.A.; YANONIS, V.V.; KOPTEV-DVORNIKOV, V.S., otv.red.;
ANDREYEV, Yu.K., red.izd-va; GOLUB', S.P., tekhn.red.

[Granitoids of the Myao-Chansk region and postmagmatic formations
associated with them] Granitoidы Мяо-Чанского района и связанные
с ними постмагматические образования. Москва, Изд-во Акад. наук
СССР, 1962. 168 p. (Академия наук СССР. Институт геологии
рудных месторождений петрографии, минералогии и геохимии.
Труды, №.62). (MIRA 15:8)

(Kharbarovsk Territory--Granite)

Terentsova V.

USSR/General Problems of Pathology - Inflammation.

T-1

Abs Jour : Ref Zhur - Biol., No 4, 1958, 17:55
Author : Shvayko, V., Terentsova, V.
Inst : -
Title : The Reaction of the Birds to Subcutaneous and Intramuscular Injections of Purulent Exudate.
Orig Pub : Sb. nauchno-issled. rabot stud. Stavropol'sk. s-kh. in-t, 1956, vyp. 4, 112-114.
Abstract : No abstract.

Card 1/1

VOLOKOVICH, M.P.; TERENT'EV, I.A.

Electron diffraction study of peat components. Vols. parts 22
no.43510-512 Jl. Eng '65. (CIA 18-12)

1. Kalininckiy Torfyanoy Institut. Submitted January 7, 1965.

L 45879-66

ACC NR: AP6022175

SOURCE CODE: UR/0193/66/000/002/0019/0020

31
BAUTHOR: Terent'yev, A. A.

ORG: None

TITLE: Differential pressure gages of DSS and DSP sylphon types

SOURCE: Byulleten' tekhniko-ekonomiceskoy informatsii, no. 2, 1966, 19-20

TOPIC TAGS: pressure-measuring instrument, liquid level instrument, pressure gage, manometer / ~~DSS~~, DSP pressure gage, DSS pressure gage

ABSTRACT: New differential manometers or gages of DSS and DSP types, manufactured by the "Teplokontrol'" Plant, are described. They are equipped with two sensitive sylphon elements for balancing and measuring pressure differentials. The elements are made of nonmagnetic and anticorrosive alloy. Both elements, being connected by a rod, are mounted in a special housing as shown in a sectional view. The inside sylphon sections are filled with a mixture of glycerin (33%) and water (67%). The sylphon-rod turns are transmitted by means of levers to a torsion tube connected to an indicating needle, recording pen or remote signal device. A damper is provided. The gages are rated for pressure differentials from 0.63 to 1.6 and from 0.063 to 0.25 kg/sq cm. The upper limits for measuring levels of non-aggressive liquids are 63, 100, 160, 250 and 400, 630, 1000, 1600 cm. The gages belong to the precision classes of 1 and 1.5. The integrating

Card 1/2

UDC: 531.787.7

L 45879-66

ACC NR: AP6022175

tolerance is \pm 0.5%. The gages can be used at temperatures of 5 to 50 C and humidity up to 80%. Their weight is 35 to 40 kg. They are manufactured in various versions as indicating, integrating or recording instruments. Orig. art. has: one figure.

SUB CODE: 13/ SUBM DATE: None

Card 2/2 ULR

L 45283-66 EWT(d)/EWP(f)/EWP(c)/EWP(v)/T/EWP(k)/EWP(n)/~~EWP(i)~~ IJP(c) RH
ACC NR: AP6024258 SOURCE CODE: UR/0193/66/000/005/0047/0049

38
B

AUTHOR: Terent'yev, A. A.

ORG: none

TITLE: New instruments produced by the "Teplokontrol" plant in Kazan'

SOURCE: Byul tekhn-ekon inform, no. 5, 1966, 47-49

TOPIC TAGS: pressure measuring instrument, manometer, vacuum measurement, measuring equipment

ABSTRACT: Several new instruments, now in series production at the "Teplokontrol" plant, Kazan' (Kazanskiy zavod "Teplokontrol"), are briefly described. Two main instrument classes are discussed: 1) automatic-recording manometers of the bellows thermostat type, vacuum manometers, and vacuum meters; and 2) automatic-recording manometers with tubular spring assembly. The former are designed for measurements and time recordings under conditions of excess and vacuum pressure (rarefaction) of noncorrosive gases; the second class is used for noncorrosive fluids and gaseous media in stationary industrial equipment. Both types can be employed in the chemical, petroleum, power, and other industries. The instruments described have a guaranteed service life of 24 months (instead of the former 12-month guarantee).

14

UDC: 681.2

Card 1/2

L 45283-66

ACC NR: AP6024258

period). The more important technical characteristics of the units are given, along with a schematic diagram of the bellows-thermostat recording manometers, vacuum manometers and vacuum meters. Orig. art. has: 2 figures.

SUB CODE: 1490/SUBM DATE: none

Card 2/2 *b6b*

ACC NR: AP6033446

INVENTOR: Proskuryakov, G. V.; Vozndayev, Ye. A.; Terent'yev, A. A.; Kulikova, L. P.

ORG: None

TITLE: A method for bending sectional profiles from sheet stock. Class 7, No. 185827

SOURCE: Izobret prom obraz tov zn, no. 18, 1966, 21

TOPIC TAGS: sheet metal, metal bending, bending machine

ABSTRACT: This Author's Certificate introduces a method for bending sectional profiles from sheet stock. Cross sections with internal bending radii close to zero are produced from material with low ductility by additional bending with the application of compressive force to shelves on the prebent profile along lines which are normal and tangent to the central axis of the cross section.

SUB CODE: 11, 13/ SUBM DATE: 21Oct63

Card 1/1

UDC: 621.981.1

TYERENT'YEV, A. B.

E-2

USSR/Organic Chemistry. Synthetic Organic Chemistry.

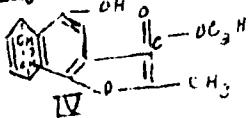
Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19174

Author : Grinyev A.N., Tyerent'yev A.B., Tyerent'yev A.P.

Inst : Study in Quinones. IX. On the interaction of 5,8-endo-
Title : ethylene-1, 4-naphthoquinone with Hydrogenchloride and
Acetoacetic ester.

Orig Pub: Zh. obshch. khimiya, 1945, 26, No 3, 730-732.

Abstract: By the condensation of 5,8-endoethylene-1, 4-naphtho-
quinone (I) with HCl in ether according to the method
described (RZhKhim, 1955, 42972) is obtained 2-chloro-
5,8-endoethylene-1,4-dihydroxynaphthalene (II), m.p. 155°
(from glaci. CH₃COOH).



Card : 1/2

USSR/Organic Chemistry. Synthetic Organic Chemistry.
Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19174

E-2

II is also obtained by th diene synthesis from chloro-
quinone and cyclohexadiene with the subsequent isomeri-
zation of the adduct (yield of the adduct 87%, m.p. 78-
79°) by heating in CH₃COOH + HBr. The interaction of I
with acetoacetic ester (III) in the presence of ZnCl₂
leads to the substituted benzofuran (IV), m.p. 192-193°
(from CH₃COOH and benzene). From IV at the hydrolysis
with alcoh. NaOH the corresponding hydroxy acid (V), m.p.
233° (from 50% alcohol) is obtained. By Methylation of
V with (CH₃)₂SO₄ a methoxy acid m.p. 272° (dec. sublima-
tion) is obtained. Condensation I with III, hydrolysis
IV and methylation V is carried out according to the
method described (RZhKhim. 1955, 48930).

Card : 2/2

TYERLINT'YEV A. B.

USSR/Organic Chemistry. Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19172

Author : Grinyev A. N., Tyerlint'yev A. B., Tyerlint'yev A. P.

Inst : Moscow State U.

Title : Studies in the Series of Quinones. VII. Synthesis of some Quinones of Dihydro- and Tetrahydronaphthalene by the Oxidation of Corresponding Hydroquinones with Potassium Bromate.

Orig Pub: Zh. obshch. khimiyi, 1956, 26, No 2. 456

Abstract: Synthesis of 5,8-dihydronaphthoquinone-1,4 (I), 2-methyl-I(II), 5,6,7,8-tetrahydronaphthoquinone-1,4 (III) and 5,8-ondoothylene-5,8-dihydronaphthoquinone-1,4 (IV) by oxidation of the corresponding hydroquinones by means of KBrO₃ is described. Hydroquinone is dissolved by heating in dioxane, a solution of KBrO₃ in hot water and 1N. H₂SO₄ are added, the mixture is heated to 60°, then

Card : 1/2

GRINEV, A.N.; TERENT'YEV, A.B.; TERENT'YEV, A.P.

Research in the field of quinones. Part 9. Interaction of 5,8-endooethylene-1,4-naphthoquinone with hydrogen chloride and ethyl acetoacetate. Zhur. ob. khim. 26 no. 3:730-732 Mr '56. (MLRA 9:8)

1. Moskovskiy gosudarstvennyy universitet.
(Naphthoquinone) (Hydrochloric acid) (Acetoacetic acid)

TERENT'YEV, A.P.
GRINEV, A.N.; TERENT'YEV, A.B.; TERENT'YEV, A.P.

Quinones. Part 13: The yield of endoethylennaphtofuran. Zhur. ob.
khim. 26 no. 10:2931-2932 O '56. (MIRA 11:3)

1. Moskovskiy Gosudarstvennyy universitet.
(Furan) (Quinones)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"

ICR-NY-2, 7.B.

5/3
REFERENCES:
Menzelov, A. Kh., Academician, Prudnikov, R. Kh., Corresponding Member, A. D., Petrova, R. G., Ferent'ev, A. B.
Reaction Between 1,1,1-Trichloropropene and Ketone(s)

TITLE:
PRINCIPAL:
Dokl. Akademi Nauk SSSR, 1959, Vol. 127, No. 1,
pp. 573 - 577 (ISSN)

ABSTRACT:

At least 3 types of addition reactions (Ref 1) are known for 1,1,1-trichloropropene: 1) electrophilic addition of hypohalous acids; for example, this reaction takes place in contrast to the Markownikov law); 2) nucleophilic addition occurring together with a rearrangement of allyl; and finally, 3) radical addition. This reaction takes place together with a rearrangement of the unstable developed radicals, from type "a" to type "g" (see Scheme). In addition of thiophenol, and benzyl ketone(s) was investigated in the present work by means of 1,1,1-trichloropropene, 2,3,5-trichloropropylbenzyl sulfide (see Scheme) developed by means of an addition of the first mentioned substance (and an exposure to the light of a 100 W bulb). Its structure was determined in two ways (Ref 2). Thus the reaction takes place under the given con-

ditions, according to the homolytical mechanism. In the case of benzyl ketone, however, 2 products develop: 2,3,5-trichloropropylbenzyl sulfide (II) and 3,5-dichloropropene-2,3-dimethylsulfide (III). The latter compound is predominated. From the determination of the structure of the sulfide (II) and (III) by means of different synthesis, it was found that HCl is separated during the reaction. Its amount corresponds to that of the produced sulfide (II) (see Scheme). The formation of sulfide (II) according to the method of a nucleophilic addition is less probable. 3,5-Dichloropropylbenzyl sulfide developed during the reaction of 1,1,1-trichloropropene with thiophenol in the presence of sulphur as inhibitor of radical processes. Its structure was confirmed by the lacking of frequencies in the 1- ν_{CH_2} -region which are characteristic of the methyl group. There are 2 references, 1 of which is Soviet.

Card 1/3

Card 2/3

ASSOCIATION: Institut Elementarno-Organicheskikh Svedchenii Akademii Nauk SSSR (Institute for Elementary-Organic Compounds of the Academy of Sciences, USSR)

SUBMITTER: May 6, 1959

Card 3/3

FREYDLINA, R.Kh.; PETROVA, R.G.; TERENT'YEV, A.B.

Synthesis and properties of polychlorodialkyl sulfides. Izv.
AN SSSR Otd.khim.nauk no.5:842-846 My '60. (MIRA 13:6)

1. Institut elementoorganicheskikh soyedineniy Akademii nauk
SSSR.
(Sulfides)

TERENT'YEV, A. B.

8/081/62/000/014/009/039
B166/B144

AUTHORS: Nesmeyanov, A. N., Freydina, R. Kh., Kost, V. N.,
Khorlina, M. Ya., Sidorova, T. T., Petrova, R. G.,
Terent'yev, A. B.

TITLE: Connection between the structure of polyalkylhalide radicals
and their ability to regroup in solution

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1962, 178, abstract
14Zh41 (Tr. po khimii i khim. tekhnol. [Gor'kiy], no. I,
1961, 106-115)

TEXT: A review of the authors' work on the homolytic addition of HBr,
 CCl_3 , Br, Br_2 , $\text{C}_6\text{H}_5\text{SH}$ and $\text{C}_6\text{H}_5\text{CH}_2\text{SH}$ to olefins $\text{XCCl}_2\text{CY} - \text{CH}_2$ (I), where
 $\text{X} = \text{Cl}, \text{F}, \text{H}, \text{CH}_3$, and $\text{Y} = \text{H}, \text{Cl}, \text{Br}, \text{CH}_3$. The results of the work show
that the aforesaid reactions proceed according to the general scheme:
 $\text{I} + \text{HBr} \rightarrow \text{HCClXYClCH}_2\text{Br} + \text{CClX} - \text{CYCH}_2\text{Br} + \text{HCClXYClCH}_2\text{Cl}$. This
indicates that the initially formed polyalkylhalide radicals (PR) are

Card 1/2

Connection between the structure ...

S/081/62/000/C14/009/039
B166/B144

rearranged and then stabilized either by adding an H or by dehalogenation; moreover the latter leads to the chain of reaction being continued. The exception is compounds with X = F, which along with rearranged products also give products which are not rearranged. It was found that the rearrangement of PR tends towards the formation of more stable radicals. A table of the relative stability of the PR is drawn up:

$\text{CCl}_2\text{CHClCH}_2\text{X} > \text{CCl}_3\dot{\text{C}}\text{HCH}_2\text{X}$ (when X = Br, Cl, CCl₃, C₆H₅);
 $\text{CCl}_2\text{CCl}(\text{CH}_3)\text{CH}_2\text{Br} > \text{CCl}_3\dot{\text{C}}(\text{CH}_3)\text{CH}_2\text{Br}; \text{CCl}_2\text{CCl}_2\text{CH}_2\text{Br} > \text{CCl}_3\dot{\text{C}}\text{ClCH}_2\text{Br};$
 $\dot{\text{C}}\text{HClCHClCH}_2\text{Br} > \text{CHCl}_2\dot{\text{C}}\text{HCH}_2\text{Br}; \text{CHCl}_2\dot{\text{C}}\text{ClCH}_2\text{Br} > \dot{\text{C}}\text{HClCCl}_2\text{CH}_2\text{Br};$
 $\text{CH}_3\dot{\text{C}}\text{ClCHClCH}_2\text{Br} > \text{CH}_3\text{CCl}_2\dot{\text{C}}\text{HCH}_2\text{Br}; \text{CFCl}_2\dot{\text{C}}\text{HCH}_2\text{Br} \approx \text{CFClCHClCH}_2\text{Br};$
 $\dot{\text{C}}\text{FClCB}\text{rClCH}_2\text{Br} \approx \text{CFCl}_2\dot{\text{C}}\text{BrCH}_2\text{Br}. 15$ references. [Abstracter's note:
Complete translation.]

Card 2/2

FREYDLINA, R.Kh.; TERENT'YEV, A.B.; PETROVA, R.G.; NESMEYANOV, A.N., akademik

Regroupment of radicals in the reactions of thiols with polyhalo-propenes. Dokl.AN SSSR 138 no.4:859-862 Je '61. (MIRA 14:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. 2. Chlen-korrespondent AN SSSR (for Freydlina).
(Mercapto compounds) (Propene) (Radicals (Chemistry))

FREYDLINA, R.Kh.; TERENT'YEV, A.B.; PETROVA, R.G.

Reaction of 1,1-dichloro-2-propene and crotonaldehyde with
alkyl(aryl)thiols. Izv. AN SSSR Otd.khim.nauk no.2:282-286
F '62. (MIRA 15:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Propene)
(Crotonaldehyde)
(Thiols)

TERENT'YEV, A.B.; PETROVA, R.G.

Homolytic rearrangements with alkyl and aryl thio group
migration. Izv. AN SSSR. Ser. khim. no.12:2153-2156 D '63.
(MIRA 17:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

FREYDLINA, R.Kh.; TERENT'IEV, A.B.; PETROVA, R.G.

Free-radical isomerization of acetone diphenylmercaptols. Dokl.
AN SSSR 149 no.4:860-861 Ap '63. (MIRA 1643)

1. Institut elementoorganicheskikh soyedinenii AN SSSR.
2. Chlen-korrespondent AN SSSR (for Freydlina).
(Acetophenone) (Radicals (Chemistry)) (Isomerization)

FREYDLINA, R.Kh.; TERENT'YEV, A.B.; PETROVA, R.G.

Radical isomerization of acetophenone diphenylmercaptols. Dokl.
AN SSSR 151 no.4:866-868 Ag '63. (MIRA 16:8)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. 2. Chlen-
korrespondent AN SSSR (for Freydlina).
(Acetophenone) (Mercapto group) (Isomerization)

FREYDLINA, R.Kh.; TERENT'YEV, A.B.

Homolytic isomerization of acetone di-n-butylmercaptole. Dokl.
AN SSSR 152 no.3:637-639 S '63. (MIRA 16:12)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. 2. Chlen-korrespondent AN SSSR (for Freydlina).

FREYDLINA, R.Kh.; AMINOV, S.N.; TERENT'YEV, A.B.

Rearrangement of radicals in the telomerization of ethylene by
acetic acid. Dokl. AN SSSR 156 no. 5:1133-1136 Je '64.
(MIRA 17:6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
2. Chlen-korrespondent AN SSSR (for Freydlina).

TERENT'YEV, A.B.; FREYDLINA, I.Kh.

Rearrangement of α,β -bis-(n-butythio)-ethylbenzene to α,β -bis-(n-butythio)-ethylbenzene under the action of tertiary butyl peroxide.
(MIRA 17:10)
Dokl. AN SSSR 158 no. 3:679-681 S '64.

1. Institut elementoorganicheskikh soyedineniy AN SSSR. 2. Chlen-korrespondent AN SSSR (for Freydlina).

TERENT'YEV, A.B.

Some examples of radical rearrangement of organosulfur compounds.
Izv. AN SSSR. Ser. khim. no.7;1258-1260 '65. (MIRA 18:7)

I. Institut elementoorganicheskikh soyedineniy AN SSSR.

AMINOV, S.M.; TERN'TYEV, A.E.; IRIYDLINA, R.K.

Telomerization of ethylene by aliphatic acids and acetonitrile.

Izv. AN SSSR.Ser.khim. no.10:1855-1860 '65.

(MIRA 18:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

AMINOV, S.N.; TERENT'YEV, A.B.; FREYOLINA, R.Kh.

Telomerization of ethylene by fatty acids and their derivatives.
Uzb. khim. zhur. 9 no. 6:36-42 '65. (MIRA 18:12)

1. Institut elemento-organicheskikh soyedineniy AN SSSR.
Submitted April 10, 1965.

THE NEW YORK TIMES, JULY 16, 2001, FRONT PAGE

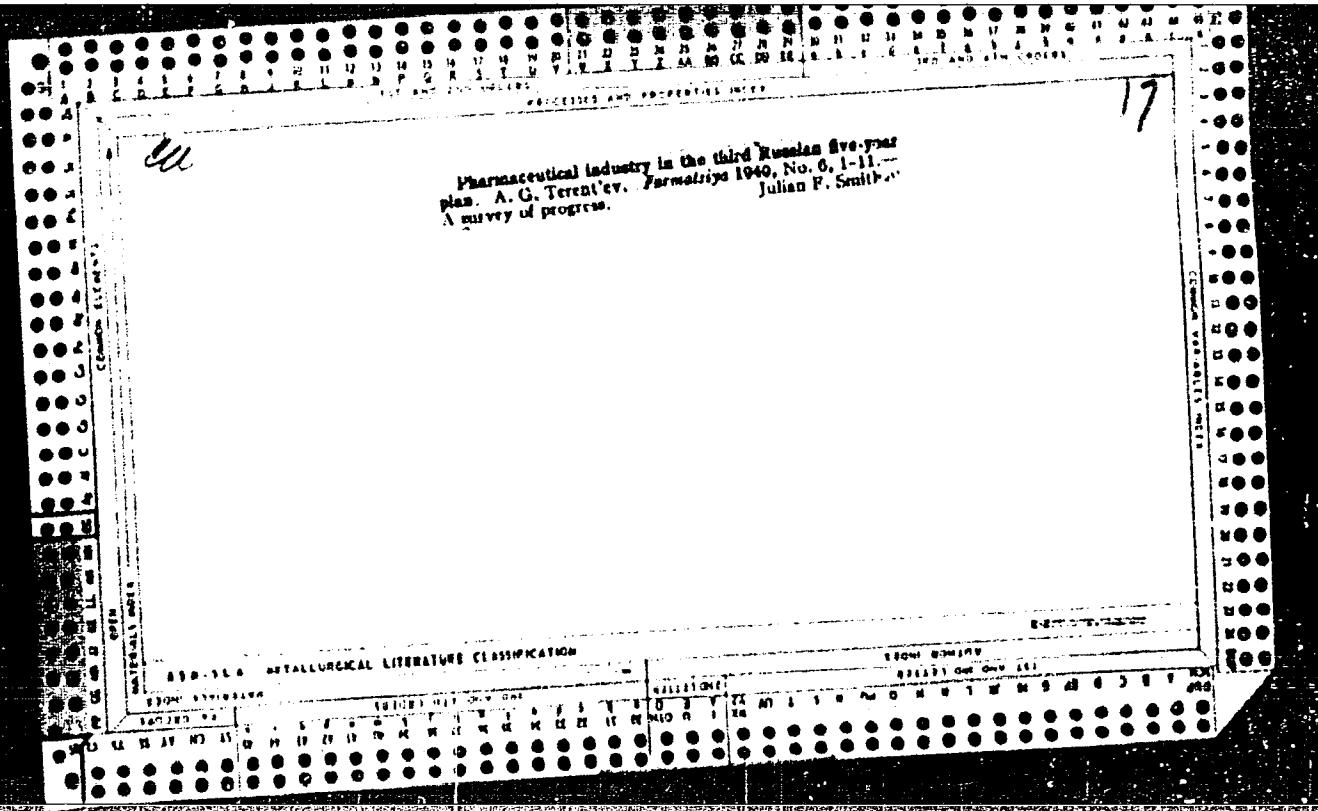
Salvation Army to partner with local cities, Navy, AMERICA
Bank, Wal-Mart, Inc., 20042-2014, 100% (100%)

1. Institute element of each city's community AMERICA

TERENT'YEV, A.F., aspirant

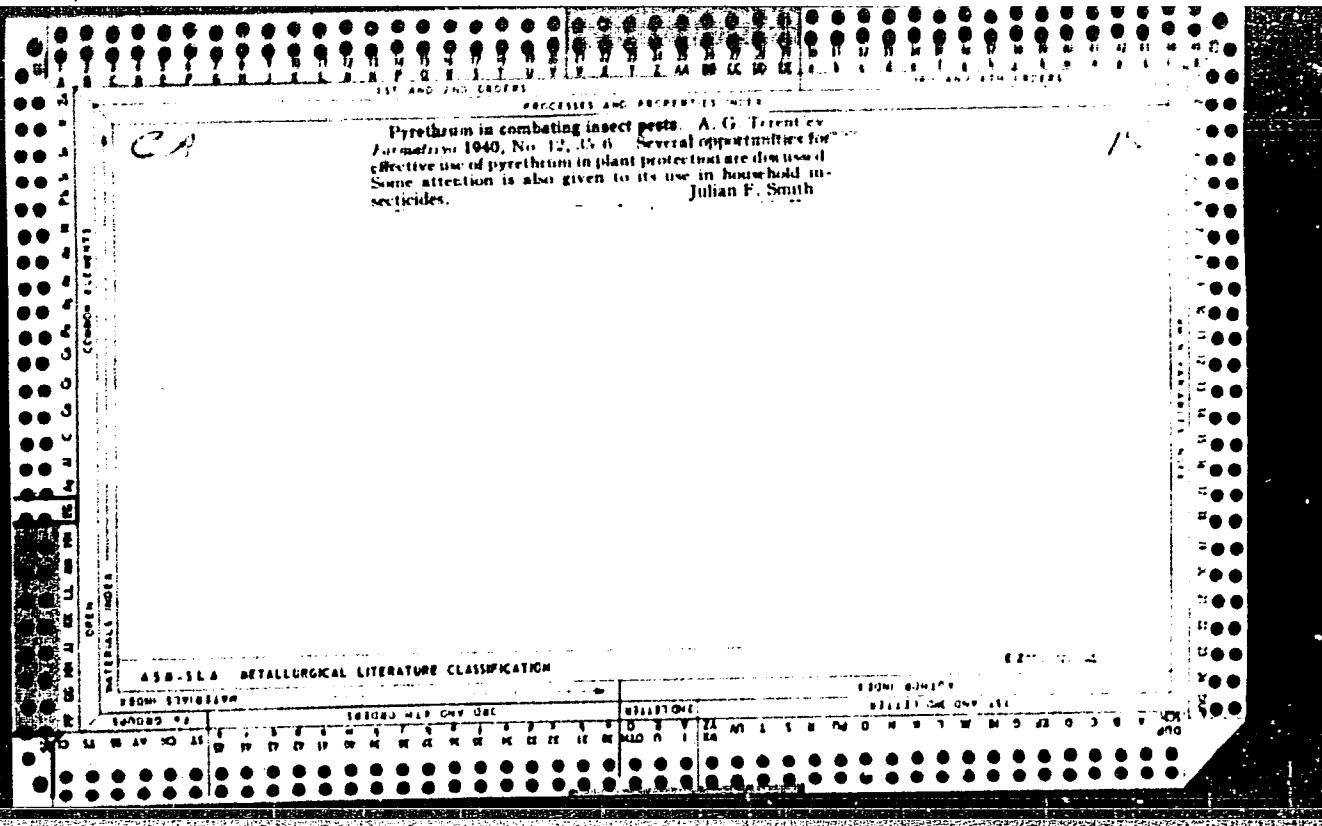
Practices in controlling bloodsucking insects and gadflies
infesting reindeers in the tundra. Veterinariia 38 no.8
63-66 Ag '61 (MIRA 18:1)

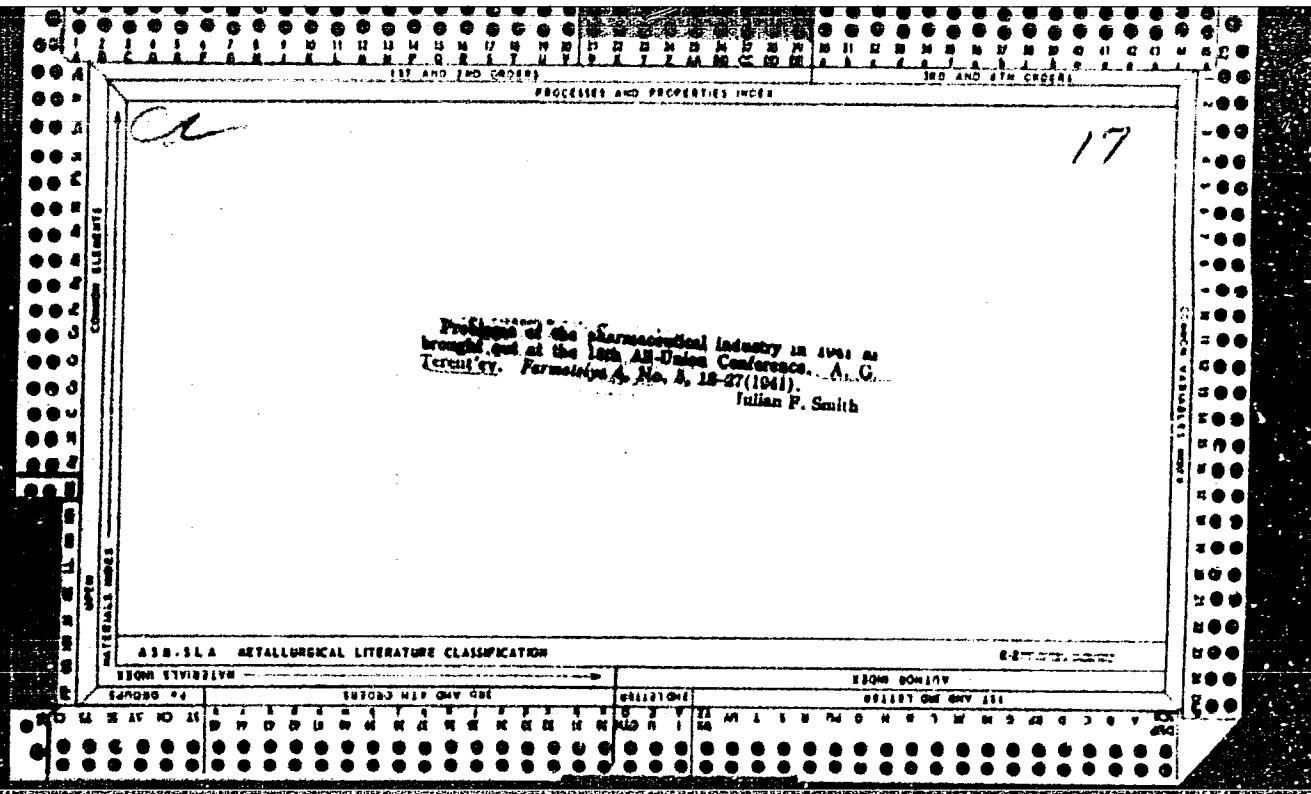
1. Vsesoyuznyy nauchno-issledovatel'skiy institut veterinarnoy sanitarii.

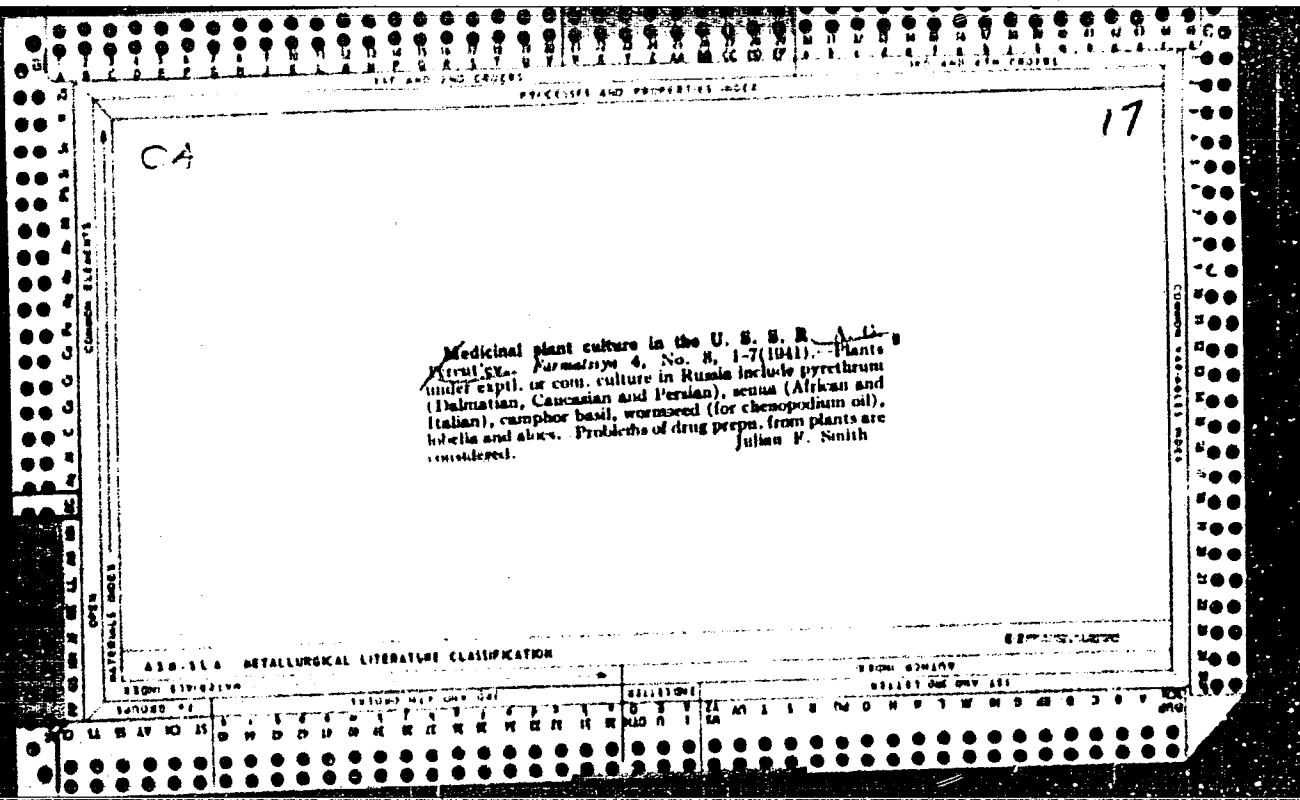


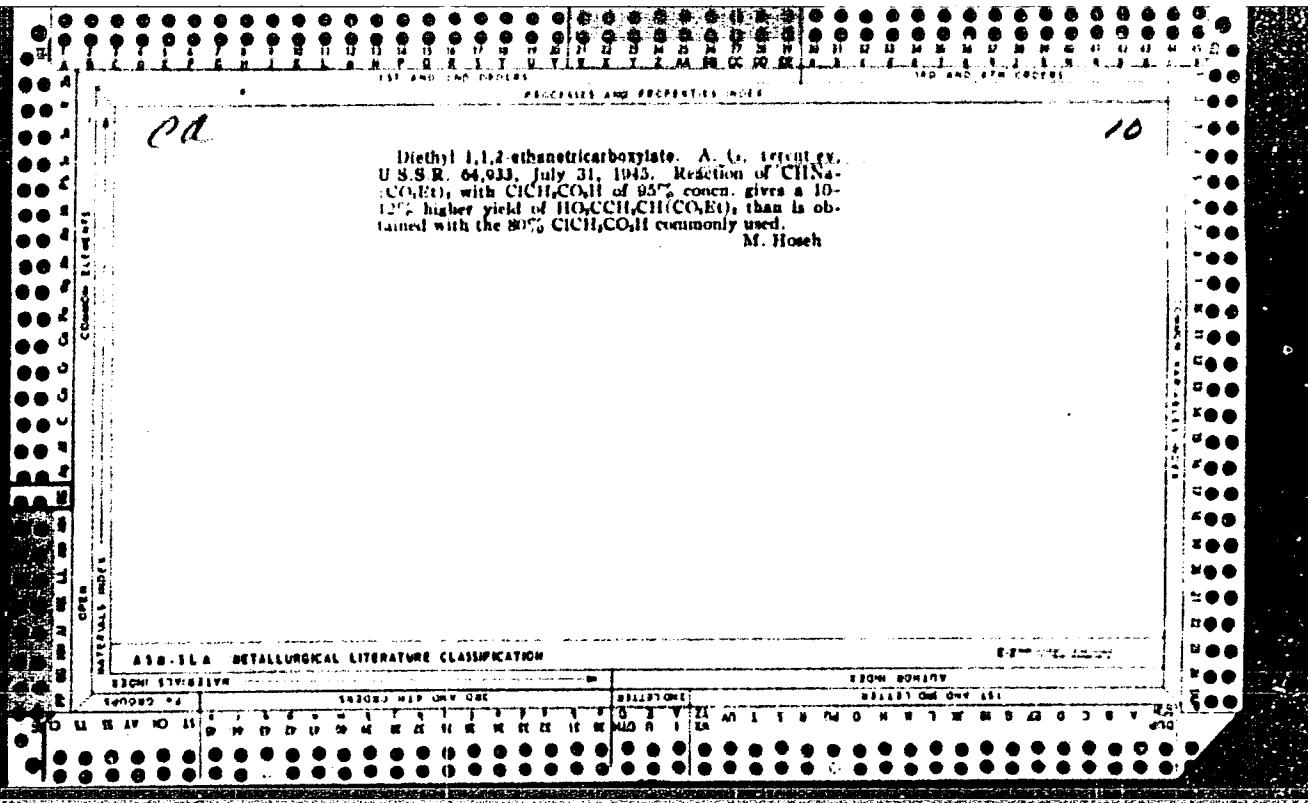
APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755320019-8"









2-Ethoxy-6,9-diaminoacridine-trihydroxyglutarate. A.
I. Tsvetkov, B. S. Vengerovskii, and P. G. Ozernova.
USSR 65,980, March 31, 1966. To 2-ethoxy-6,9-
diaminoacridine (C.I. numbering) in hot alk. is added
alk. trihydroxyglutaric acid, and the salt formed is filtered
off. This product is usable as substitute for rivanol.
M. Hesch

ASQ-104 METALLURGICAL LITERATURE CLASSIFICATION

TERENT'YEV, A. G.

MDR., Main Admin. Med. Industry, -cl94/-.
"The Use of Progressive Technical Norms," Med. Prog., No. 2, 1947.

TERENT'YEV, A. G.

33432. Uskoreniye Oborachivayerosti Oborotnykh Sredstv Na Zavokakh Meditsinskoy Promyshlennosti. Med. Prom-st' SSSR, 1949, No. 5, c. 12-17.

SO. Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

PIMENTOV, A.G., ORGAN, G.I.

Measuring Instruments

Experience of introducing departmental supervision of measuring control instruments in the plants of the medical instruments industry. Med.prom., no. 2, 1952.

JULY 1952

~~1952~~ Unclassified

9. Monthly List of Russian Accessions, Library of Congress,

TERENT'YEV, A. G;ORLOV, G. T;

Results of introduction of departmental supervision on the
control and measuring apparatus in medical industry. Med.
promyshl. SSSR no.224-29 Mar-Apr 1952. (CLML 22:2)